Amendments to the Specification:

Please replace the paragraph beginning at line 3, page 7, with the following amended paragraph:

Antigenic variation within the species *C. pneumoniae* is not well documented due to insufficient genetic information, though variation is expected to exist based on *C. trachomatis*. Serovars of *C. trachomatis* are defined on the basis of antigenic variation in the major outer membrane protein (MOMP), but published *C. pneumoniae* MOMP gene sequences show no variation between several diverse isolates of the organism (Campbell *et al* (1990) Infection and Immunity 58:93; McCafferty *et al* (1995) Infection and Immunity 63:2387-9; Knudsen *et al* (1996) Third Meeting of the European Society for Chlamydia Research, Vienna). The gene encoding a 76 kDa antigen has been cloned from a single strain of *C. pneumoniae* and the sequence published (Perez Melgosa *et al.*, Infect. Immun. 1994. 62:880). An operon encoding the 9 kDa and 60 kDa ~~cyteine-rich~~ cysteine-rich outer membrane protein genes has been described (Watson *et al.*, Nucleic Acids Res (1990) 18:5299; Watson *et al.*, Microbiology (1995) 141:2489). Many antigens recognized by immune sera to *C. pneumoniae* are conserved across all chlamydiae, but 98 kDa, 76 kDa and several other proteins may be *C. pneumoniae*-specific (Perez Melgosa *et al.*, Infect. Immun. 1994. 62:880; Melgosa *et al.*, FEMS Microbiol Lett (1993) 112 :199;, Campbell *et al.*, J Clin Microbiol (1990) 28 :1261; Iijima *et al.*, J Clin Microbiol (1994) 32:583). An assessment of the number and relative frequency of any *C. pneumoniae* serotypes, and the defining antigens, is not yet possible. The entire genome sequence of *C. pneumoniae* strain CWL-029 is now known ~~(http://chlamydia-www.berkeley.edu:4231/)~~ and as further sequences become available a better understanding of antigenic variation may be gained.

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Please replace the paragraph beginning at line 30, page 21, with the following amended paragraph:

A recombinant expression system is selected from procaryotic and eucaryotic hosts. Eucaryotic hosts include yeast cells (*e.g.*, *Saccharomyces cerevisiae* or *Pichia pastoris*), mammalian cells (*e.g.*, COS1, NIH3T3, or JEG3 cells), arthropods cells (*e.g.*, *Spodoptera frugiperda* (SF9) cells), and plant cells. A preferred expression system is a procaryotic host such as *E. coli*. Bacterial and eucaryotic cells are available from a number of different sources including commercial sources to those skilled in the art, *e.g.*, the American Type Culture Collection (ATCC; ~~Rockville, Maryland~~ 10801 University Boulevard, Manassas, VA 20110-2209). Commercial sources of cells used for recombinant protein expression also provide instructions for usage of the cells.

Please replace the paragraph beginning at line 17, page 48, with the following amended paragraph:

The ATP/ADP translocase gene (SEQ ID NO:1) was amplified from *Chlamydia pneumoniae* genomic DNA by polymerase chain reaction (PCR) using a 5' primer
(5' ATAAGAATGCGGCCGCCACC**ATGACAAAAACCGAAGAAAAACC** 3') (SEQ ID No:3) and a 3' primer
(5' GCGCCGGATCC**CTGAAGAAGCAGGAGCTG** 3') (SEQ ID No:4). The 5' primer contains a Not I restriction site, a ribosome binding site, an initiation codon and a sequence at the 5' end of the ATP/ADP translocase coding sequence. The 3' primer includes the sequence encoding the C-terminal sequence of the ATP/ADP translocase and a Bam HI restriction site. The stop codon was excluded and an additional nucleotide was inserted to obtain an in-frame fusion with the Histidine tag.

Please replace the paragraph beginning at line 4, page 49, with the following rewritten paragraph:

Plasmid pcDNA3.1(-)Myc-His C (Invitrogen) was restricted with Spe I and Bam HI to remove the CMV promoter and the remaining vector fragment was isolated. The CMV promoter and intron A from plasmid VR-1012 (Vical) was isolated on a Spe I / Bam HI fragment. The fragments were ligated together to produce plasmid pCA/Myc-His. The Not I/Bam HI restricted PCR fragment containing the ATP/ADP translocase gene (SEQ ID NO:1) was ligated into the Not I and Bam HI restricted plasmid pCA/Myc-His to produce plasmid pCAI764 (Fig 3).

Please replace the first line in the claims page with the following:

~~Claims~~ What is claimed is: